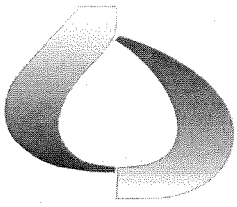
Appendix P

IEUA's Drought Plan (includes MWD's WSAP)



Inland Empire
UTILITIES AGENCY *

Inland Empire Utilities Agency

Drought Plan

April 15, 2009

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SECTION 1 – INTRODUCTION

The State of California and the Southern California Region is in the midst of a third consecutive year of drought and water levels in all of the state's major reservoirs are below normal. On February 27, 2009, Governor Schwarzenegger proclaimed a statewide drought emergency and directed state agencies to take immediate action to address the drought conditions and water delivery reductions.

Critically dry conditions are affecting all of the Metropolitan Water District of Southern California (MWD) water supply sources. In addition, recent court rulings and regulatory actions have further impacted State Water Project water and supplies. These legal and regulatory developments, along with the impacts of dry conditions, have raised the possibility that MWD may not have access to the supplies necessary to meet total firm demands and will have to allocate shortages in supplies to MWD Member Agencies.

In February 2008, in anticipation of possible water supply shortages, the MWD Board of Directors adopted the Water Supply Allocation Plan (MWD WSAP). The MWD WSAP provides guidance for allocating limited water supplies to Member Agencies should the need arise. MWD is closely monitoring water supply conditions. If it is determined the MWD WSAP needs to be implemented, this decision will be made by the MWD Board of Directors on April 14, 2009 and the plan would go into effect July 1st, 2009.

The Inland Empire Utilities Agency (IEUA) Drought Plan was developed for the purpose of implementing the MWD WSAP, within the IEUA's service area in a manner that is fair and equitable to IEUA's Member Agencies. The IEUA Drought Plan is consistent with and supplements the MWD WSAP for specific IEUA service area drought planning issues. All MWD WSAP definitions, policies, principals and program provisions are incorporated here by reference and are considered to be a part of the IEUA Drought Plan. For example, if IEUA is not imposed a penalty from MWD then IEUA would not impose a penalty on a member agency within IEUA's service area. In addition, MWD does not allow resale or "marketing" of MWD WSAP allocation credits and IEUA will not allow IEUA Drought Plan credits to be sold internally within IEUA's service area or externally without IEUA's approval. A complete copy of the adopted MWD WSAP is provided as Appendix A.

IEUA's Drought Plan is consistent with and contributes to the existing IEUA imported water policies and programs. For example, the IEUA's Drought Plan principles encourage development and full utilization of local water resources, such as recycled water and conservation measures. The IEUA Drought Plan also addresses MWD's Chino Basin Groundwater Storage Dry Year Yield (DYY) program and the need for best management of DYY

program "shift" obligations concurrent with MWD WSAP reductions of imported water supplies to IEUA.

SECTION 2 – IEUA Drought Plan Preparation

2.1 IEUA and Retail Agency Coordination

The process to prepare the IEUA Drought Plan has been in full consultation with all the retail agencies, cities, Chino Basin Water Conservation District and Chino Basin Watermaster. This has been a consensus based process which has included monthly meetings to discuss the development of the IEUA Drought Plan as well as numerous presentations and workshops at MWD, IEUA, IEUA Member Agency offices and the offices of the Chino Basin Watermaster. Throughout this process the IEUA Board of Directors was provided with regular progress reports on the status of the plan and the technical workgroup discussions. Since July 2007, there have been more than 55 public presentations, workshops and meetings. See Appendix B for a summary of these activities.

2.2 IEUA Drought Allocation Plan Principles

The following principles are intended to describe the development and implementation of the IEUA Drought Plan.

Overall Plan

- The IEUA Drought Plan was developed in cooperation with the Member Agencies and includes all aspects of drought planning such as actions to avoid rationing, drought response stages, allocation, methodology, pricing and communications strategy.

Drought Supply Enhancement

- IEUA and its Member Agencies worked cooperatively to avoid or minimize rationing during droughts through supply enhancement, such as the implementation of the Three Year Recycled Water Business Plan and voluntary demand reduction measures.

Drought Response Stages

- The drought response stages are consistent with MWD's adopted MWD WSAP. MWD, IEUA and IEUA's Member Agencies will coordinate the administration of MWD WSAP and DYY Program accounting and performance targets to minimize impacts to IEUA Member Agencies.

Allocation Methodology

- The allocation methodology was developed to be equitable, easy to administer, contain financial and pricing signals to ensure Member Agencies and the public are informed and understand the need to conserve. In order to protect the economic health of the entire region, it is important that the allocation methodology avoid large, uneven retail impacts across the region.

- A Member Agency that has developed local projects and instituted conservation measures should not be penalized in the computation of the shortage allocation. To help balance the financial costs and risks associated with the development of local resources, the shortage allocation methodology should provide an incentive to those Member Agencies that can develop additional local supplies.

Metropolitan Water District Consistency

- IEUA will administer the IEUA Drought Plan to be consistent with MWD policies and procedures.

Communication Strategy

- A regional communication strategy is included as a part the IEUA Drought Plan. IEUA and Member Agencies have agreed that a coordinated regional strategy be prepared, including development of a unified message and press activities to strengthen communication with the public about the serious nature of the drought and the actions that are needed to manage water demands and ensure a safe and reliable water supply during drought conditions.
- The development of an ongoing, coordinated and regional public outreach program has been initiated and provides a clear and consistent message to the public regarding support Member Agencies communication efforts that address specific retail level allocations. An Ad hoc committee comprised of IEUA and its Member Agencies has been established to develop and coordinate the information to be provided to the media, public officials and the general public. The communication message will include clear solutions – easy and inexpensive ways to conserve. It is essential that local print and news media are fully committed to covering the situation.
- The drought communication strategy will include the following:
    - Regular meetings with Member Agencies and Conservation Partners Ad hoc committee to develop and coordinate a regional conservation message starting in February, 2009.
    - Regular briefings to the Inland Valley Daily Bulletin and other editorial boards.
    - Joint press conferences with Member Agencies, Three Valley's MWD, Western MWD, and MWD to provide updates on the water supply status and actions that need to be taken to address the drought.

- A speaker's bureau which will provide timely presentations and updates to City Councils, Chambers of Commerce, and Service Organizations.
- Inland Valley Daily Bulletin feature advertising on conservation and monthly conservation tips and rebates.
- An advertising campaign using donated billboard space and Public Service Announcements.
- Distribution of information to the public about the drought and conservation tips and rebates through school programs, libraries and senior organizations.

2.3 IEUA Drought Allocation Plan Goals

- Ensure equity and fairness throughout IEUA's service area
- Avoid payment of MWD WSAP or DYY penalties to MWD
- Recognize IEUA/MWD investments in local supplies to "drought proof" the IEUA service area
- Encourage additional local investments to further drought proof the economy
  - Enhanced Conservation
  - Recycled Water – Connect parks, schools and other landscapes
  - Interconnections to promote flexibility (Azusa Pipeline)
  - Increased Chino Desalter production
  - Groundwater Recharge (recycled water and capture of storm water when available)
- Coordinate IEUA's service area communication strategy
- Implement IEUA's Drought Plan in a manner that is consistent with MWD's WSAP and DYY policies and contracts

Section 3 – IEUA DROUGHT PLAN AND ALLOCATION SCENARIOS

3.1 Overview

IEUA is a MWD member agency, and is obligated to follow the MWD Board adopted MWD WSAP. The allocation methodology is based on the guiding principles and considerations described in MWD's WSDM Plan and updated through its nine-month planning process which culminated in the adoption of the MWD WSAP.

3.2 IEUA Baseline under MWD Water Supply Allocation Plan

MWD uses a three year 2004-2006 average from actual water demand data as the baseline for its calculation of the water supply allocation for its Member Agencies. Only potable water supplies are counted in the baseline (recycled water is not included). The baseline data

addresses imported water, groundwater, surface water, and desalter water supplies. In-lieu water is designated as a local groundwater supply.

Table 1 provides a summary of IEUA's baseline data. Total imported and local supplies are 261,343 acre-feet. IEUA's purchase of imported water (Tier1/Tier2) during the 2004-2006 period averaged 51,992 acre-feet.

Table 1. Summary of IEUA's Baseline Data (2004-2006 Average)

Water Source	Baseline (2004-2006) AF
Imported (MWD) Tier 1/Tier2 Purchases	**51,992**
Local Supplies	
Groundwater	166,815
Surface Water	18,361
Chino Desalters	6,228
Recycled[1]	--
In-Lieu	17,947
Local Supply SUB-TOTAL	**209,351**
TOTAL (Imported and Local Supplies)	**261,343**

IEUA's 2009 Imported Water Baseline Allocation was developed by MWD according to the methodology defined in the MWD WSAP (see Appendix A). This methodology begins with the baseline demand of 261,343 AF and then adds a growth adjustment percentage based on the actual growth rate in IEUA's service area. For IEUA's service area, the growth adjustment percentages are as follows: for 2007 (1.89%), for 2008 (2.4%) and for 2009 (2.4%). These growth adjustment percentages are based upon the California Department of Finance most recent growth report. In addition, a water conservation adjustment factor is added. This adjustment recognizes previous investments in water conservation in the IEUA service area and the use of tiered-rate structures, where applicable.

As shown in Table 2, IEUA's imported water allocation increases from 51,992 AF (2004-2006 three-year average "Baseline") to 69,386 AF (2009 Imported Water Baseline Allocation).

[1] Recycled water is not included in IEUA's baseline data because the MWD WSAP does not take into account non-potable water supplies; however, during the base period (2004-2006) on average IEUA produced 11,468 AFY.

Table 2. Comparison of IEUA's Baseline Imported Water Purchases and IEUA's 2009 Baseline Allocation under the MWD Water Supply Allocation Plan

Water Source	IEUA's Imported Water Baseline (2004-2006) AF	IEUA's 2009 Imported Water Baseline Allocation AF
Imported Deliveries (MWD)	**51,992**	**69,386**

IEUA's 2009 Imported Water Baseline Allocation of 69,386 AF is allocated as summarized here. First, the imported water baseline amount of 51,992 AF is allocated based on the amount of imported water purchased during the base period. The Water Facilities Authority (WFA) on average purchased 21,671 AFY (42%) and Cucamonga Valley Water District (CVWD) on average purchased 30,321 AF (58%). Fontana Water Company (FWC) did not purchase imported water during the base period. Second, IEUA's additional imported water allocation (attributable to growth and water conservation adjustments) of 17,394 AF is allocated based on 2008 population. Therefore of this 17,394 AF amount, the WFA is allocated 9,045 AF or 52% and CVWD is allocated 8,349 or 48% (see appendix C). Table 3 summarizes IEUA's 2009 Imported Water Baseline Allocation to the WFA and CVWD. As previously noted, FWC did not purchase imported water during the base period and for this reason does not receive an allocation. This table is the foundation for the IEUA Drought Plan allocation scenarios in the following sections.

In April, 2009 the MWD Board of Directors is scheduled to consider whether or not to implement the MWD WSAP. If implemented, the MWD WSAP will take effect July 1, 2009 and continue for a twelve month period through June 30, 2010.

Table 3. IEUA and Member Agencies 2009 Imported Water Baseline Allocation

Agency	IEUA & Member Agencies Baseline Allocation
IEUA	69,386
Water Facilities Authority	30,716
Cucamonga Valley W.D.	38,670
Fontana Water Company	0
TOTAL	69,386

3.3 Level 2 (10%) Shortage Allocation Scenario

The MWD WSAP establishes twenty levels of water shortage with corresponding percentage reductions in imported water allocations. In the event an MWD Member Agency exceeds its imported water supply allocation, then a penalty will be assessed to that agency. Such penalties will be assessed by MWD at the end of the twelve month period.

For the purpose of developing a shortage allocation scenario, a MWD WSAP Level 2 (10%) shortage allocation is provided here as an example. Table 4 compares IEUA and its Member Agencies baseline allocations with a Level 2 (10%) shortage allocation. IEUA's allocation, under a Level 2 (10%) shortage is reduced from 69,386 AF to 59,601 AF. [2]

Table 4. IEUA and Member Agencies Level 2 (10%) Allocation

Agency	IEUA & Member Agencies Baseline Allocation	Level 2 (10%) Allocation
IEUA	**69,386**	**59,601**
Water Facilities Authority	**30,716**	**26,224**
Cucamonga Valley W.D.	**38,670**	**33,377**
Fontana Water Company	**0**	**0**
TOTAL	**69,386**	**59,601**

3.4 IEUA's Drought Plan and DYY Performance Scenario

As noted above, the MWD WSAP may be implemented during the period July 1, 2009 through June 30, 2010. In addition to the MWD WSAP, MWD has notified IEUA that it will implement the second year of the Dry Year Yield (DYY) Program for the period May 1, 2009 through April 30, 2010 and will "call" for 31,000 AF of DYY Program groundwater in storage. One impact resulting from the implementation of both programs would be a greater reduction in the amount of imported water deliveries to the DYY Program participating agencies. Table 5 shows the impact that the DYY Program shift obligation has on the amount of imported water deliveries IEUA and its Member Agencies will receive. The last column in Table 5 shows the annual imported water deliveries that IEUA and its Member Agencies will receive after complying with their respective DYY Program shift obligation.

[2] Current MWD estimate for the IEUA Level 2 allocation is 59,601 AF but this may be adjusted in response to the final MWD calculation of conservation credits and potentially other amendments to the baseline.

Table 5. IEUA and Member Agencies 2009 Imported Water Baseline Allocation With DYY Shift Obligation

Agency	IEUA & Member Agencies 2009 Baseline Allocation	DYY Shift Obligation	MWD Allocation after 2009 DYY Shift Obligation
IEUA	69,386	31,000	38,386
Water Facilities Authority	30,716	19,647	11,069
Cucamonga Valley W.D.	38,670	11,353	27,317
Fontana Water Company	0	0	0
TOTAL	69,386	31,000	38,386

The impact of the implementation of the two programs (MWD WSAP and DYY) during a Level 2 (10%) shortage allocation is a further decrease in MWD imported water deliveries to IEUA. Table 6 summarizes this impact.

Table 6. IEUA and Member Agencies Level 2 (10%) Allocation with DYY Shift Obligation

Agency	Level 2 (10%) Allocation	DYY Shift Obligation	MWD Allocation after 2009 DYY Shift Obligation
IEUA	59,601	31,000	28,601
Water Facilities Authority	26,224	19,647	6,577
Cucamonga Valley W.D.	33,377	11,353	22,024
Fontana Water Company	0	0	0
TOTAL	59,601	31,000	28,601

MWD has officially approved the DYY Shift Obligation Period to be May 1, 2009 to April 30, 2010. Therefore, depending on the amount of the DYY shift that can occur during this two month period (May and June 2009), IEUA Member Agencies will be able to reduce the impact of the DYY Program during the MWD WSAP period (July 2009 to June 2010) and maximize their imported water allocation for surface deliveries at CB12 and CB16.

3.5 Maximize Local Water Supplies Scenario

One of the core principles of the IEUA Drought Plan is to maximize the development and use of local water supplies, including recycled water, desalter water, groundwater and increased water efficiency. Current water demands in the IEUA service area are significantly less than IEUA's projected water supplies for 2009, which include MWD's 69,386 AF baseline allocation to IEUA. This suggests that increased local supplies will greatly enhance the service area's ability to cope with MWD's imported water allocations.

Table 7 provides a comparison of the projected demands and supplies for the baseline period (2004-2006), the actual IEUA water use in 2007/2008 and the projected water supplies under a MWD WSAP Baseline Allocation. Table 8 is similar to Table 7, but includes an added column that summarizes how local water supplies will help to address the reduction in MWD imported deliveries under a MWD level 2 (10%) shortage allocation.

Table 7. IEUA and Member Agencies Projected Water Supplies Table

Water Source	IEUA's Baseline (2004-2006) AF	IEUA 2007/08 Water Use AF	IEUA's 2009/10 Projected Supply AF
Imported (MWD)	51,992	69,000	69,386
3-Year Average (2004-06)			51,992
Local Supplies			
Groundwater	166,815	132,000	160,000
Surface Water	18,361	18,000	18,000
Chino Desalters	**6,228**	**15,000**	**15,000**
Recycled	--	**8,000**	**20,000**
In-Lieu	17,947	--	--
SUB-TOTAL	***209,351***	***190,000***	***213,000***
TOTAL Imported and Local Supplies	261,343	242,000	282,000
IEUA Projected Demand		242,000	242,000

Table 8. IEUA and Member Agencies Projected Water Supplies
At a Level 2 (10%) Shortage Allocation

Water Source	IEUA's Baseline (2004-2006) AF	IEUA FY 07/08 Water Use AF	IEUA's FY 09/10 Projected Supply AF	FY 09/10 Level 2 Shortage (10%) AF
Imported (MWD)	51,992	69,000	69,386	59,601
3-Year Average (2004-06)			51,992	51,992
Local Supplies				
Groundwater	166,815	132,000	160,000	160,000
Surface Water	18,361	18,000	18,000	18,000
Chino Desalters	**6,228**	**15,000**	**15,000**	15,000
Recycled	--	**8,000**	**20,000**	20,000
In-Lieu	17,947	--	--	--
SUB-TOTAL	***209,351***	***190,000***	***213,000***	***213,000***
TOTAL Import/Local Supplies	**261,343**	**242,000**	**282,000**	**272,000**
IEUA Projected Demand		242,000	242,000	242,000

3.6 IEUA Penalties

MWD enforces Member Agency allocations through a penalty rate structure. The applicable rates are based on MWD's established tiered pricing structure. Penalty rates and charges will only be assessed to the extent that an agency's total annual usage exceeds its total annual allocation.

Funds collected by MWD (through penalty rates) will be applied towards investments in conservation and local resources development within the service area of the Member Agency that incurs the penalties. MWD will assess penalties at the end of the twelve-month allocation period and currently proposes to provide Member Agencies with three months to pay any penalties that are incurred.

If the MWD WSAP is implemented by MWD and IEUA is assessed penalties, IEUA will enact penalty rates consistent with the MWD WSAP and the IEUA Drought Plan pursuant to IEUA Ordinance 70, Division II, Part II, Section 201. IEUA will not assess penalties if the whole IEUA service area is in compliance with its MWD WSAP allocation after the July 2009 – June 2010 period, even though WFA, CVWD or possibly FWC may exceed its IEUA Drought Plan allocation. This is consistent with IEUA's historic Tier 1 and Tier 2 billing procedures.

Table 9. MWD Penalty Rates under MWD Water Supply Allocation Plan

Standard MWD Penalty Rates			
Water Use	Base Water Rate	Penalty Rate	Total Rate
100% of Allocation	Tier 1	0	Tier 1
Between 100% and 115%	Tier 1	2 x Tier 2	Tier 1 + (2 x Tier 2)
Greater Than 115%	Tier 1	4 x Tier 2	Tier 1 + (4 x Tier 2)

3.7 IEUA Billing Under an MWD Allocation

If the MWD WSAP is implemented by MWD, IEUA's monthly billing process will remain the same. At the end of the twelve-month allocation period, IEUA will receive from MWD an invoice that includes an assessment of penalties if IEUA's 2009 MWD WSAP allocation has been exceeded. IEUA will summarize WFA, CVWD and FWC total imported water purchases based upon the monthly MWD invoices to IEUA and determine whether either agency exceeded its individual allocation. Based on this determination, IEUA will assess penalties in accordance with IEUA's adopted Ordinance 70, but only if IEUA is assessed a penalty from MWD. If penalties are incurred, IEUA will allow payment of these penalties, consistent with the MWD WSAP, to be spread over three monthly billing periods. IEUA will work as needed with each member agency to develop an appropriate payment schedule.

MWD has an administrative procedure for reviewing and making changes to the MWD WSAP allocation based upon loss of local supplies and other extraordinary conditions. IEUA will work with the Member Agencies and MWD to ensure that any changes to the MWD WSAP allocation are appropriately considered before penalties are assessed to any agency within the IEUA service area.

3.8 IEUA Tracking and Reporting

Consistent with current IEUA practice and the requirements of the MWD WSAP and the DYY Program, Member Agency imported water purchases and local water use will be summarized and reported on a monthly basis. This information will help IEUA and its Member Agencies to monitor and evaluate water use demands, project annual usage and avoid any over usage that would result in MWD WSAP and DYY Program penalties. IEUA will rely on the full cooperation of Member Agencies to collect monthly water demand and supply information in a timely manner.

3.9 Revisiting the IEUA Drought Plan

Principal objectives in the development of the IEUA Drought Plan are to ensure equity and fairness throughout IEUA's service area. However, due to the complexity of these issues and the possibility that unforeseen circumstances may occur, IEUA offers the opportunity to review and refine components of this plan as appropriate.

IEUA and the Member Agencies will continue to meet regularly during the next year to monitor DYY Program and MWD WSAP performance and will have the opportunity to revisit the plan and offer any recommendations to the IEUA Board that will improve the method, calculation, and approach of this plan.

Metropolitan has a similar process which will allow opportunity to review the MWD WSAP as approved.

Section 4 – Summary

In February 2008, in anticipation of possible water supply shortages, the MWD Board of Directors adopted the Water Supply Allocation Plan (MWD WSAP). The MWD WSAP provides guidance for allocating limited water supplies to Member Agencies should the need arise. MWD is closely monitoring water supply conditions. If it is determined the MWD WSAP needs to be implemented, this decision will be made by the MWD Board of Directors on April 14, 2009, and the plan would go into effect July 1st, 2009.

The Inland Empire Utilities Agency (IEUA) Drought Plan was developed for the purpose of implementing the MWD WSAP within the IEUA's service area in a manner that is fair and equitable to IEUA's Member Agencies. The IEUA Drought Plan is an extension of the MWD WSAP. All MWD WSAP definitions, policies, principals and program provisions are incorporated here by reference and are considered to be a part of the IEUA Drought Plan. A complete copy of the adopted MWD WSAP is provided as Appendix A.

IEUA's Drought Plan is consistent with and contributes to the existing IEUA policies and programs. For example, the plan's principles encourage development and full utilization of local water resources, such as recycled water, and extraordinary conservation measures. The plan also addresses MWD's DYY Program and the need for best management of the DYY Program "shift" obligations in concurrence with the MWD WSAP reductions of imported water supplies to IEUA.

APPENDIX A

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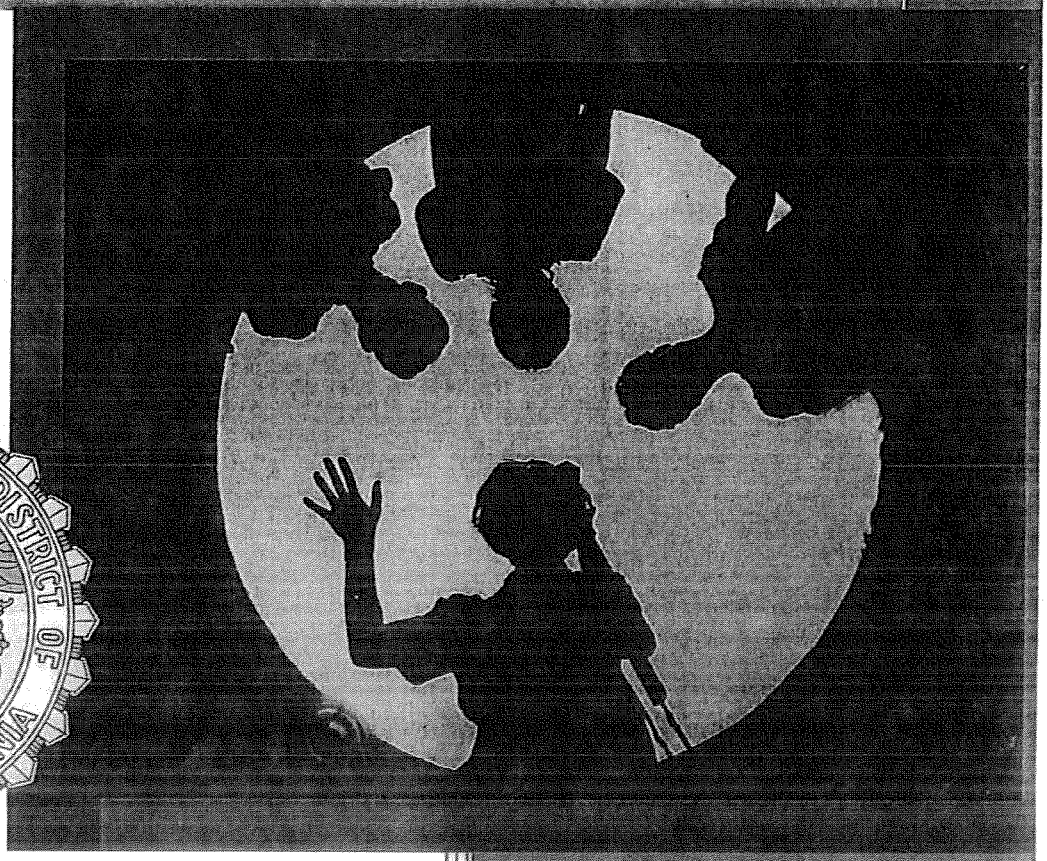
Water Supply Allocation Plan



Metropolitan Water District of Southern California

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Water Supply Allocation Plan

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List of Acronyms:

Af- Acre-feet
CWD- County Water District
DWP- Drought Management Plan
IAWP-Interim Agricultural Water Program Reductions and Rates
IICP- Incremental Interruption and Conservation Plan
IRP- Integrated Resources Plan
M&I- Municipal and Industrial
MWD- Municipal Water District
RUWMP- Regional Urban Water Management Plan
SWP - State Water Project
WSDM- Water Surplus and Drought Management

Definitions:

Extraordinary Increases in Production- Local water production efforts that increase local supplies, including purchasing water transfers or overproducing groundwater yield.

Groundwater Recovery- The extraction and treatment of groundwater making it usable for a variety of applications by removing high levels of chemicals and/or salts.

In-lieu deliveries- Metropolitan-supplied water bought to replace water that would otherwise be pumped from the groundwater basins.

Overproducing groundwater yield- Withdrawal (removal) of groundwater over a period of time that exceeds the recharge rate of the supply aquifer. Also referred to as overdraft or mining the aquifer.

Seasonal Shift- Water requested in a period of low demand for use in high demand periods. This water will not be available beyond 2009.

Seawater Barrier- The injection of fresh water into wells along the coast to protect coastal groundwater basins from seawater intrusion. The injected fresh water acts like a wall, blocking seawater that would otherwise seep into groundwater basins as a result of pumping.

Surface Storage Operating Agreement Demand- Deliveries made to the San Diego County Water Authority under the Surface Storage Operating Agreement. Water delivered under this program is used by San Diego County Water Authority to offset peak period delivery requirements.

Section 1: Introduction

Calendar Year 2007 introduced a number of water supply challenges for the Metropolitan Water District of Southern California (Metropolitan) and its service area. Critically dry conditions affected all of Metropolitan's main supply sources. In addition, a ruling in the Federal Courts in August 2007 provided protective measures for the Delta Smelt in the Sacramento-San Joaquin River Delta which brought uncertainty about future pumping operations from the State Water Project. This uncertainty, along with the impacts of dry conditions, raised the possibility that Metropolitan would not have access to the supplies necessary to meet total firm demands[1] and would have to allocate shortages in supplies to the member agencies[2].

In preparing for this possibility, Metropolitan staff worked jointly with the member agency managers and staff to develop a Water Supply Allocation Plan (Plan). This Plan includes the specific formulas for calculating member agency supply allocations and the key implementation elements needed for administering an allocation should a shortage be declared. Ultimately, the Plan will be the foundation for the urban water shortage contingency analysis required under Water Code Section 10632 and will be incorporated into Metropolitan's Regional Urban Water Management Plan (RUWMP).

Section 2: Development Process

Member Agency Input

Between July 2007 and February 2008, Metropolitan staff worked cooperatively with the member agencies through a series of member agency manager meetings and workgroups to develop a formula and implementation plan to allocate supplies in case of shortage. These workgroups provided an arena for in-depth discussion of the objectives, mechanics, and policy aspects of the different parts of the Plan. Metropolitan staff also met individually with fifteen member agencies for detailed discussions of the elements of the recommended proposal. Metropolitan introduced the elements of the proposal to many nonmember retail agencies in its service area by providing presentations and feedback to a number of member agency caucuses, working groups, and governing boards. The discussions, suggestions, and comments expressed by the member agencies during this process contributed significantly to the development of this Plan.

Board of Directors Input

Throughout the development process Metropolitan's Board of Directors was provided with regular progress reports on the status of this Plan, with oral reports in September, October, and December 2007, an Information Board of Directors Letter with a draft of the Plan in November 2007, and a Board of Directors Report with staff recommendations in January 2008. Based on Water Planning and Stewardship Committee discussion of the staff recommendations and further review of the report by

[1] Firm demands are also referred to as uninterruptable demands; likewise non-firm demands are also called interruptible demands.

[2] See Appendix A for list of member agencies.

the member agencies, refinements were incorporated into the Plan for final consideration and action in February 2008. The Plan was adopted at the February 12, 2008 Board of Directors meeting[3].

Section 3: Review of Historical Shortage Plans[4]

The Plan incorporates key features and principles from the following historical shortage allocation plans but will supersede them as the primary and overarching decision tool for water shortage allocation.

Interruptible Water Service Program

As part of the new rate structure implemented in 1981, Metropolitan's Board of Directors adopted the Interruptible Water Service Program (Interruptible Program) which was designed to address short-term shortages of imported supplies. Under the Interruptible Program, Metropolitan delivered water for particular types of use to its member agencies at a discounted rate. In return for this discounted rate, Metropolitan reserved the right to interrupt delivery of this Interruptible Program water so that available supplies could be used to meet municipal and industrial demands.

Incremental Interruption and Conservation Plan

The ability to interrupt specific deliveries was an important element of Metropolitan's strategy for addressing shortage conditions when it adopted the Incremental Interruption and Conservation Plan (IICP) in December 1990. Reductions in IICP deliveries were used in concert with specific objectives for conservation savings to meet needs during shortages. The IICP reduced Interruptible Service deliveries in stages and provided a pricing incentive program to insure that reasonable conservation measures were implemented.

1995 Drought Management Plan

The 1995 Drought Management Plan (DMP) was a water management and allocation strategy designed to match supply and demand in the event that available imported water supplies were less than projected demands. Adopted by the Metropolitan Board of Directors in November 1994, the 1995 DMP was a short-term plan designed to provide for the 1995 calendar year only. The primary objective of the 1995 DMP was to identify methods to avoid implementation of mandatory reductions. The 1995 DMP included various phases and a step-by-step strategy for evaluating supply and demand conditions and utilizing Metropolitan's available options, with the final phase being implementation of the revised IICP.

1999 Water Surplus and Drought Management Plan

Metropolitan staff began work on the Water Surplus and Drought Management (WSDM) Plan in March 1997 as part of the Integrated Water Resources Plan (IRP), which was adopted by Metropolitan's Board of Directors in January 1996. The IRP established regional water resource targets, identifying the need for developing resource management policy to guide annual operations. The WSDM Plan defined Metropolitan's resource management policy by establishing priorities for the use of regional resources

[3] A complete listing of member agency meetings and Board of Directors reporting activities is contained in Appendix B of this report.

[4] A summary of the key elements in the following allocation plans is found in Appendix C.

to achieve the region's reliability goal identified in the IRP. In April 1999, Metropolitan's Board of Directors adopted the WSDM Plan.

The WSDM Plan also included a set of principles and considerations for staff to address when developing specific allocation methods. The WSDM Plan stated the following guiding principle to be followed in developing any future allocation scheme:

> *"Metropolitan will encourage storage of water during periods of surplus and work jointly with its member agencies to minimize the impacts of water shortages on the region's retail consumers and economy during periods of shortage."*[5]

This principle reflects a central desire for allocation methods that are both equitable and minimize regional hardship to retail water consumers. The specific considerations postulated by the WSDM Plan to accomplish this principle include the following:[6]

- The impact on retail customers and the economy
- Allowance for population and growth
- Change and/or loss of local supply
- Reclamation/Recycling
- Conservation
- Investment in local resources
- Participation in Metropolitan's interruptible programs
- Investment in Metropolitan's facilities.

Section 4: Water Supply Allocation Formula

Based on the guiding principle and considerations described in the WSDM Plan, Metropolitan staff and the member agencies developed a specific formula for allocating water supplies in times of shortage. The formula seeks to balance the impacts of a shortage at the retail level while maintaining equity on the wholesale level, and takes into account growth, local investments, changes in supply conditions and the demand hardening[7] aspects of non-potable recycled water use and the implementation of conservation savings programs. The formula, described below[8], is calculated in three steps: base period calculations, allocation year calculations, and supply allocation calculations. The first two steps involve standard computations, while the third section contains specific methodology developed for this Plan.

Step 1: Base Period Calculations

The first step in calculating a water supply allocation is to estimate water supply and demand using a historical base period with established water supply and delivery data. The base period for each of the different categories of demand and supply is calculated using data from the three most recent non-shortage years, 2004-2006.[9]

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[5] WSDM Plan, p. 1. Emphasis added.

[6] WSDM Plan, p. 2.

[7] Demand hardening is the effect that occurs when all low-cost methods of decreasing overall water demand have been applied (e.g., low-flow toilets, water recycling) and the remaining options to further decrease demand become increasingly expensive and difficult to implement.

[8] Detailed operational elements of these objectives and a numerical example are discussed in Appendix D of this report.

[9] Exceptions to this methodology are noted in the descriptions of base period calculations.

(a) **Base Period Local Supplies:** Local supplies for the base period are calculated using a three-year average of groundwater production, groundwater recovery, Los Angeles Aqueduct supply, surface water production, and other imported supplies. Non-potable recycling production is not included in this calculation due to its demand hardening effect.

(b) **Base Period Wholesale Demands:** Firm demands on Metropolitan for the base period are calculated using a three-year average of full-service, seawater barrier, seasonal shift, and surface storage operating agreement demand.

(c) **Base Period Retail Demands:** Total retail-level municipal and industrial (M&I) demands for the base period are calculated by adding the Base Period Wholesale Demands and the Base Period Local Supplies. This estimates an average total demand for water from each agency.

(d) **Base Period In-lieu Deliveries:** Base period in-lieu deliveries to member agency storage are calculated using a three-year average of in-lieu deliveries to long-term groundwater replenishment, conjunctive use, cyclic, and supplemental storage programs.

(e) **Base Period Interim Agricultural Water Program Deliveries:** Through discussions with the member agencies, fiscal year 2003/04 was established as the base period for Interim Agricultural Water Program (IAWP) deliveries. This baseline will remain in place for the period in which the IAWP Reduction is in effect and for droughts continuing into successive years.

(f) **Base Period Conservation:** Conservation savings for the base period are calculated using modeled estimates of the most recent year's savings from active programs, code-based savings, and system losses. This is different than other base period calculations because, for demand hardening purposes, it is preferable to use the most recent estimate of installed water savings as opposed to a three-year average. Modeled estimates are generated using device-based savings and decay rates provided by California Urban Water Conservation Council and other recognized sources. These estimates currently include savings accumulated from Metropolitan funded programs. Agencies with verified conservation device installations from conservation efforts funded without Metropolitan assistance can be added through an appeals process.

(g) **Qualifying Conservation Rate Structure:** An additional consideration will be given to agencies whose retail-level water use is subject to a qualifying water rate structure. A qualifying rate structure is defined as one with at least two tiers of volumetric rates, with a price differential between the bottom and top tiers of at least 10 percent. Agencies with a qualifying rate structure will be given a credit of .5 percent of the qualified Base Period Retail Demand to be added to the Base Period Conservation estimate listed above.

Step 2: Allocation Year Calculations

The next step in calculating the water supply allocation is estimating water needs in the allocation year. This is done by adjusting the base period estimates of retail demand for population or economic growth and changes in local supplies.

(a) **Allocation Year Retail Demands:** Total retail M&I demands for the allocation year are calculated by adjusting the Base Period Retail Demands for growth. The growth adjustment is calculated using the average annual rate of population growth at the county level, as generated by the California Department of Finance, over the three-year base period. On an appeals basis, member agencies may request that their adjustment be calculated using a weighted combination of actual population and actual employment growth rates.

(b) **Allocation Year Local Supplies:** Allocation year local supplies are estimated using the Base Period Local Supplies plus Base Period In-Lieu Deliveries and adjusting for any local gain or loss in supply, including extraordinary increases in production. In-lieu deliveries are added to reflect the corresponding reduction in base year local production that was required to certify in-lieu deliveries to storage. Planned or scheduled increases in supply, which are not due to extraordinary increases in production over the base year, are added to the Base Period Local Supplies. Losses of local supply due to such things as hydrology or water quality are subtracted from the Base Period Local Supplies[10]. These adjustments are made to give a more accurate estimate of actual supplies in the allocation year and more accurately reflect an agency's demand for Metropolitan supplies.

(c) **Allocation Year Wholesale Demands:** Demands on Metropolitan for the allocation year are calculated by subtracting the Allocation Year Local Supplies from the Allocation Year Retail Demands.

Step 3: Supply Allocation Calculations

The final step is calculating the water supply allocation for each member agency based on the allocation year water needs identified in Step 2. The following table displays the elements that form the basis for calculating the supply allocation. Each element and its application in the allocation formula is discussed below.

[10] Losses of local supply that are not covered by this adjustment include groundwater losses that are less than or equal to base period replenishment deliveries (for a two year period following interruptions of replenishment deliveries) and supplies that were used to cover IAWP shortages and are no longer available to meet firm demands.

Table 1: Shortage Allocation Index					
(a) Regional Shortage Level	(b) Regional Shortage Percentage	(c) Extraordinary Increased Production Percentage	(d) Wholesale Minimum Percentage	(e) Maximum Retail Impact Percentage	(f) IAWP Reduction
1	5%	0%	92.5%	0.0%	30%
2	10%	0%	85.0%	0.0%	30%
3	15%	15%	77.5%	7.5%	40%
4	20%	20%	70.0%	10.0%	50%
5	25%	25%	62.5%	12.5%	75%
6	30%	30%	55.0%	15.0%	90%
7	35%	35%	47.5%	17.5%	100%
8	40%	40%	40.0%	20.0%	100%
9	45%	45%	32.5%	22.5%	100%
10	50%	50%	25.0%	25.0%	100%

(a) **Regional Shortage Levels:** The formula allocates shortages of Metropolitan supplies over ten levels.

(b) **Regional Shortage Percentage:** The total regional shortage is determined by dividing Metropolitan's available supplies by the sum of the Allocation Year Wholesale Demands and subtracting this amount from 1, presented as a percentage in five percent increments from five to 50.

(c) **Extraordinary Increased Production Adjustment:** This adjustment accounts for extraordinary increases in local supplies in times of shortage above the base period, including such efforts as purchasing water transfers or overproducing groundwater yield. In order not to discourage these efforts, only a percentage of the yield from these supplies is added back to Allocation Year Local Supplies, as seen in Table 1. This has the effect of "setting aside" the majority of the yield for the agency who procured the supply.

(d) **Wholesale Minimum Allocation:** The Wholesale Minimum Allocation ensures a minimum level of Metropolitan supplied wholesale water service to the member agencies equal to 100 percent of Allocation Year Wholesale Demand minus one-and-a-half times the Shortage Percent. The Wholesale Minimum Allocation ensures that member agencies will not experience shortages on the wholesale level that are greater than one-and-a-half times the Regional Shortage Percentage.

(e) **Maximum Retail Impact Adjustment:** The purpose of this adjustment is to ensure that agencies with a high level of dependence on Metropolitan do not experience disparate shortages at the

retail level compared to other agencies when faced with a reduction in wholesale water supplies. The Maximum Retail Impact Percentage is calculated as the difference between the Regional Shortage Percentage and the Wholesale Minimum Percentage then prorated on a linear scale[11] based on each member agency's dependence on Metropolitan at the retail level. This percentage is then multiplied by the agency's Allocation Year Wholesale Demand to determine an additional allocation. For agencies that are 100 percent dependent on Metropolitan, this will result in a shortage equal to the Regional Shortage Percentage.

(f) **Interim Agricultural Water Program Reductions:** Certified Interim Agricultural Water Program (IAWP) allocation is calculated by decreasing the base year IAWP deliveries by the IAWP Reduction Percentage as seen in Table 1. Penalty rates for noncompliance with this reduction schedule shall be consistent with the rates described in Administrative Code Section 4907.

(g) **Conservation Demand Hardening Credit:** The Conservation Demand Hardening Credit addresses the increased difficulty in achieving additional water savings at the retail level that comes as a result of successful implementation of water conserving devices and conservation savings programs. This supply credit is calculated in two steps. First, an estimated retail shortage percentage is calculated by adding Wholesale Minimum Percentage, Retail Impact Allocation, and Allocation Year Local Supplies and dividing by Allocation Year Retail Demands and then subtracting this from 1. Finally, this retail shortage percentage is multiplied by the agency's quantified conservation savings to find the Conservation Demand Hardening Credit. This indicates the fraction of an agency's conservation savings that will be credited back to the agency as additional allocation.

(h) **Municipal & Industrial Allocation:** The allocation to an agency for its M&I retail demand is the sum of the Wholesale Minimum Allocation, the Retail Impact Adjustment, and the Conservation Demand Hardening Credit.

(i) **Total Allocation:** The total allocation of Metropolitan supplies to an agency is calculated by adding together the Municipal & Industrial Allocation and the Interim Agricultural Water Program Reductions. This is the total amount of water the agency will receive from Metropolitan at any given Regional Shortage Level, factoring in local production, wholesale allocation, retail allocation, IAWP allocation, and conservation[12].

Section 5: Plan Implementation

The Plan will take effect if a regional shortage is declared by the Board of Directors. The following implementation elements are necessary for administering the Plan during a time of shortage. These

[11] This pro-rated adjustment is only applied when Metropolitan Shortage Level is three or greater.

[12] See Appendix D for specific allocation formulae.

elements cover the processes needed to declare a regional shortage level as well as provide a penalty rate structure for enforcing each agency's allocation.

Allocation Period

The allocation period covers twelve consecutive months, from July of a given year through the following June. This period was selected to minimize the impacts of varying State Water Project (SWP) allocations and to provide member agencies with sufficient time to implement their outreach strategies and rate modifications.

Setting the Regional Shortage Level

Metropolitan staff is responsible for recommending a Regional Shortage Level for the Board of Directors' consideration. The recommendation shall be based on water supply availability, and the implementation of Metropolitan's water management actions as outlined in the WSDM Plan. Metropolitan staff will keep the Board of Directors apprised to the status of water supply conditions and management actions through monthly reports to the Water Planning and Stewardship Committee. To further facilitate staff in the development of a recommended regional shortage level, member agency requests for local supply adjustments shall be submitted by April 1st.

Metropolitan's Board of Directors, through the Water Planning and Stewardship Committee, is responsible for approving the final Regional Shortage Level at its April meeting. By the April meeting, the majority of the winter snowfall accumulation period will have passed and will allow staff to make an allocation based on more stable water supply estimates. Barring unforeseen large-scale circumstances, the Regional Shortage Level will be set for the entire allocation period, which will provide the member agencies an established water supply level for their planning.

Allocation Appeals Process

An appeals process is necessary for the administration of any changes or corrections to an agency's allocation. Metropolitan's General Manager will designate, subsequent to a declaration of an allocation by the Board of Directors, an Appeals Liaison as the official point of contact for all information and inquiries regarding appeals. All Member Agency General Managers will be notified in writing of the name and contact information of the Appeals Liaison. Only appeals that are made through the Appeals Liaison and in accordance with the provisions outlined in Appendix G will be evaluated. Basis for appeals claims can include but are not limited to:

- Adjusting erroneous historical data used in base period calculations
- Adjusting for unforeseen loss or gain in local supply
- Adjusting for extraordinary increases in local supply
- Adjusting for population growth rates
- Reviewing calculation of base period, allocation year and supply allocation figures for consistency with the standards outlined in the Plan

Additional details and a checklist for the appeals process are available in Appendix G and H.

Allocation Penalty Rates

Member agency allocations are enforced through a penalty rate structure. The applicable rates are based on Metropolitan's established tiered pricing structure[13]. Penalty rates and charges will only be assessed to the extent that an agency's total annual usage exceeds its total annual allocation. Any funds collected will be applied towards investments in conservation and local resources development within the area the penalties are incurred. No billing or assessment of penalty rates will take place until the end of the twelve-month allocation period.

(1) **Standard Penalty Rates:** The recommended penalty rate structure is an ascending block structure that provides a lower penalty for minor overuse of allocations and a higher penalty for major overuse of allocations. The structure and applicable rates are listed in Table 2. The penalty rates shall be based on the official Metropolitan water rates in effect the last day in June of the twelve-month allocation period.

Table 2: Standard Penalty Rates

Water Use	Base Water Rate[14]	Penalty Rate[15]	Total Rate
100% of Allocation	Tier 1	0	Tier 1
Between 100% and 115%	Tier 1	2 x Tier 2	Tier 1 + (2 x Tier 2)
Greater than 115%	Tier 1	4 x Tier 2	Tier 1 + (4 x Tier 2)

(2) **Penalty Rates in Recognition of Section 135 of the MWD Act[16]:** Section 135 of the Metropolitan Water District Act declares that a member agency has the right to invoke its preferential right to water. Each year, Metropolitan calculates each agency's percentage of preferential rights based on a formula of collected cumulative revenues. Table 3 shows the preferential rights percentages as of July 2007.

[13] See Appendix E for tiered pricing rates as of January 10, 2008.

[14] The base water rate shall be the applicable water rate for the water being purchased. In most cases, it will be the Tier 1 rate (plus Treatment Surcharge for treated water deliveries). However, it is possible that the water being purchased would be in the amount that would put an agency beyond its Tier 1 limit. In that case, the base water rate will be the Tier 2 rate (plus Treatment Surcharge for treated water deliveries).

[15] Penalty rate is the fully loaded untreated Tier 2 rate.

[16] For further definition of Preferential Rights, see Appendix F.

Table 3: Preferential Water Rights by Member Agency[17]	
Member Agency	Preferential Right as Percent of Total
City of Anaheim	0.97%
City of Beverly Hills	1.01%
City of Burbank	0.94%
Calleguas MWD	3.85%
Central Basin MWD	7.48%
City of Compton	0.26%
Eastern MWD	3.11%
Foothill MWD	0.68%
City of Fullerton	0.59%
City of Glendale	1.29%
Inland Empire Utilities Agency	2.47%
Las Virgenes MWD	0.80%
City of Long Beach	2.54%
City of Los Angeles	20.97%
MWD of Orange County	13.99%
City of Pasadena	1.08%
San Diego CWA	16.73%
City of San Fernando	0.10%
City of San Marino	0.20%
City of Santa Ana	0.77%
City of Santa Monica	0.88%
Three Valleys MWD	2.62%
City of Torrance	1.17%
Upper San Gabriel MWD	3.74%
West Basin MWD	8.16%
Western MWD	3.60%

There is a discounted penalty rate schedule in recognition of these preferential rights. Using the regional supply amount used in the determination of a Regional Shortage Level, Metropolitan staff will also calculate an allocation to each member agency based on its most recent preferential right percentage. Member agencies that exceed allocations under the Water Supply Allocation Plan formula but do not exceed an equivalent calculation using preferential rights will be subject to the penalty rate schedule described in Table 4.

[17] Calculated by Metropolitan staff and audited June 30 of each year.

Table 4: Preferential Right Penalty Rate[18]			
Water Use	Base Water Rate	Penalty Rate[19]	Total Rate
100% of Allocation	Tier 1	0	Tier 1
Between 100% and 115%	Tier 1	1 x Tier 2	Tier 1 + (1 x Tier 2)
Greater than 115%	Tier 1	3 x Tier 2	Tier 1 + (3 x Tier 2)

As previously stated, the penalty rates shall be based on the official Metropolitan water rates in effect the last day in June of the twelve-month allocation period. Metropolitan staff will include equivalent preferential rights calculations in monthly reports of each member agency's water use compared to allocations.

Tracking and Reporting

Subsequent to a declared regional shortage by the Board of Directors, Metropolitan staff will produce monthly reports of each member agency's water use compared to its allocations based on monthly delivery patterns to be submitted by the member agency. In order to produce these reports, member agencies are requested to submit their local supply use on a monthly basis and certify end of allocation year local supply use. These reports and comparisons are to be used for the purposes of tracking and communicating potential underage/overage of an agency's annual allocations.

Key Dates for Water Supply Allocation Implementation

The timeline for implementation of an allocation is shown in Table 5. A brief description of this timeline follows:

January to March: Water Surplus and Drought Management reporting occurs at Metropolitan's Water Planning and Stewardship Committee meetings. These reports will provide updated information on storage reserve levels and projected supply and demand conditions.

April: Member agencies report their projected local supplies for the coming allocation year. This information is incorporated in staff analysis of storage reserves and projected supply and demand conditions in order to provide an allocation recommendation to the Board. Metropolitan's Board will consider whether an allocation is needed. A declaration of an allocation will include the level of allocation to be in effect for the allocation year.

June 30th: The allocation year is complete.

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[18] The base water rate shall be the applicable water rate for the water being purchased. In most cases, it will be the Tier 1 rate (plus Treatment Surcharge for treated water deliveries). However, it is possible that the water being purchased would be in the amount that would put an agency beyond its Tier 1 limit. In that case, the base water rate will be the Tier 2 rate (plus Treatment Surcharge for treated water deliveries).

[19] Penalty rate is the fully loaded untreated Tier 2 Rate.

July 1st: If the Board declared an allocation in April, then it will be effective starting July 1st. The allocation level will be held through June 30th, barring unforeseen circumstances. Member agencies will now be requested to submit their local supply use on a monthly basis and certify end of allocation year local supply use. Local production data must be reported to Metropolitan by the end of the month following the month of use (use in July must be reported by the end of August). This information will be combined with Metropolitan sales information in order to track retail water use throughout Metropolitan's service area. Each month Metropolitan will report on member agency water sales compared to their allocation amounts.

June 30th: The allocation year is complete.

July: Member agency local supplies must be certified for the month of June, the last month of the previous allocation year.

August: Metropolitan will calculate each member agency's total potable water use based on local supply certifications and actual sales data for the allocation year of July through June. Penalties will be assessed for usage above a given member agency's final adjusted allocation (reflecting the actual local supply and imported water use that occurred in the allocation year).

Table 5: Board Adopted Allocation Timeline

Year	Month	Year 1 Board Allocation Decision	Year 1 Allocation Year	Year 2 Board Allocation Decision	Year 2 Allocation Year
Year 1	January				
	February				
	March				
	April	Declaration *			
	May				
	June				
	July		Effective Period Continuous Tracking of Member Agency Local Supply and Imported Water Use		
	August				
	September				
	October				
	November				
	December				
Year 2	January				
	February				
	March				
	April			Declaration *	
	May				
	June				
	July				
	August		Assess Penalties		
	September				
	October				
	November				
	December				
Year 3	January				Effective Period Continuous Tracking of Member Agency Local Supply and Imported Water Use
	February				
	March				
	April				
	May				
	June				

* Member agency projections of local supplies are due on April 1st to assist Metropolitan staff in determining the need for an allocation in the coming allocation year.

Revisiting the Plan

There will be a formal revisit of the Plan commencing in February 2010. The scheduled revisit ensures the opportunity for Metropolitan staff and the member agencies to re-evaluate the plan and recommend appropriate changes to the Board of Directors. The Plan will also be reviewed twelve months following a Board of Directors implementation of the Plan to consider any immediate refinements that are necessary based on lessons learned.

Appendix A: Member Agency List as of November 2007

Table 6: Member Agencies		
City of Anaheim	City of Glendale	City of San Marino
City of Beverly Hills	Inland Empire Utilities Agency	City of Santa Ana
City of Burbank	Las Virgenes MWD	City of Santa Monica
Calleguas MWD	City of Long Beach	Three Valleys MWD
Central Basin MWD	City of Los Angeles	City of Torrance
City of Compton	MWD of Orange County	Upper San Gabriel MWD
Eastern MWD	City of Pasadena	West Basin MWD
Foothill MWD	San Diego CWA	Western MWD
City of Fullerton	City of San Fernando	

Source: http://mwdh2o.com/mwdh2o/pages/memberag/member04.html

Appendix B: Water Supply Allocation Plan Process Timeline

July 2007

- City of Long Beach Water Department staff briefing
- Member Agency Managers/Member Agency Workgroup meeting
- Northern Managers Group meeting
    - Foothill MWD, City of Pasadena, City of Long Beach, Calleguas MWD, City of Los Angeles, West Basin MWD, City of Burbank, Three Valleys MWD, City of Glendale, Upper San Gabriel MWD

August 2007

- Central Basin MWD staff briefing
- Eastern MWD staff briefing
- San Diego CWA staff briefing
- Member Agency Managers/Member Agency Workgroup meeting
- Western MWD staff briefing
- City of Beverly Hills staff briefing

September 2007

- Member Agency Subgroup meetings
    - MWD of Orange County, San Diego CWA, West Basin MWD, Central Basin MWD
- MWD of Orange County staff briefing
- Member Agency Workgroup meeting
- Member Agency Workgroup meeting
- MWD Board of Directors Oral Report

DRAFT

October 2007

- Inland Empire Utilities Agency staff briefing
- Central Basin MWD Caucus Meeting (included sub-agencies)
- Three Valleys MWD staff briefing
- MWD of Orange County staff briefing
- West Basin MWD staff briefing
- MWD Board of Directors Oral Report

November 2007

- West Basin MWD Caucus Meeting (included sub-agencies)
- West Basin Water Users Association presentation
- Walnut Valley MWD staff briefing (sub-agency of Three Valleys MWD)
- Foothill MWD Managers Meeting (included sub-agencies)
- Central Basin MWD staff briefing
- City of Claremont City Council (sub-agency of Three Valleys MWD)
- MWD Board of Directors Information Letter with Draft Proposal

December 2007

- Northern Managers Group Meeting
- California Department of Public Health staff briefing
- City of Long Beach Water Department staff briefing
- Santa Ana River Watershed Project Authority presentation
- Foothill MWD Managers Meeting (included sub-agencies)
- MWD Board of Directors Oral Report

January 2008

- Northern Managers Group Meeting
- Water Replenishment District Board of Directors presentation
- Three Valleys MWD staff briefing
- Member Agency Conservation Coordinator's Group presentation
- Member Agency Managers/Member Agency Workgroup meeting
- City of Chino Hills presentation (sub-agency of IEUA)
- Member Agency Workgroup meeting
- Hemet/San Jacinto Exchange Club presentation
- MWD Board of Directors Report with Staff Recommended Water Supply Allocation Plan

February 2008

- MWD of Orange County and Irvine Ranch WD staff briefing
- MWD Board of Directors Action Item
- San Gabriel Valley Water Association Meeting
- Orange County Water Policy Meeting
- SCAG Water Policy Task Force Meeting

Appendix C: Summary of Historical Shortage Plans

These five elements incorporated into the Plan have, in four out of five instances, been used in previous shortage plans. Both the IICP and the 1995 DMP used a historical base period calculation, adjusted for growth, made local supply adjustments, and used conservation hardening credits in their formulations. The retail impact adjustment is the only feature of the Plan that has not been used historically.

Table 7: Historical Shortage Plan Overview			
Plan Element	1991 IICP	1995 DMP	Water Supply Allocation Plan
Historical Base Period	√	√	√
Growth Adjustment	√	√	√
Local Supply Adjustment	√	√	√
Conservation Hardening Credit	√	√	√
Retail Impact Adjustment			√

Appendix D: Water Supply Allocation Formula Example

The following example gives a step-by-step description of how the formula would be used to calculate an allocation of Metropolitan supplies for a hypothetical member agency. All numbers are hypothetical for the purpose of the example and do not reflect any specific member agency.

Step 1: Base Period Calculations

(a) **Base Period Local Supplies:** Calculated using a three-year average of groundwater (gw), groundwater recovery (gwr), Los Angeles Aqueduct supply(laa), surface water(sw), and other non-Metropolitan imported supplies(os).

$$[(gw^1+gwr^1+laa^1+sw^1+os^1)+(gw^2+gwr^2+laa^2+sw^2+os^2)+(gw^3+gwr^3+laa^3+sw^3+os^3)]\div 3=59{,}000 \text{ af}$$

(For the purpose of this example, assume that the three year average is 59,000 af.)

(b) **Base Period Wholesale Demands:** Calculated using the same three-year time period as the Base Period Local Supplies. The Base Period Wholesale Demands include full-service (fs), seawater barrier (sb), seasonal shift (ss), and surface storage operating agreement (ssoa).

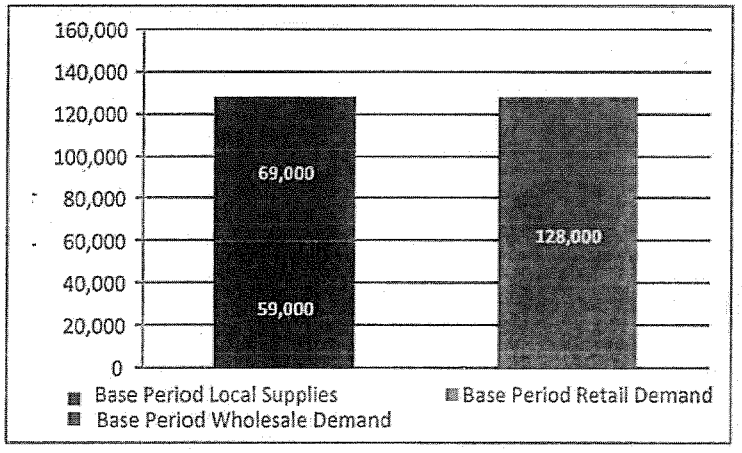
$$[(fs^1+sb^1+ss^1+ssoa^1)+ (fs^2+sb^2+ss^2+ssoa^2)+(fs^3+sb^3+ss^3+ssoa^3)]\div 3=69{,}000 \text{ af}$$

(For the purpose of this example, assume that the three year average is 69,000 af.)

(c) **Base Period Retail Demands:** Calculated as the sum of the Base Period Local Supplies and Base Period Wholesale Demand.

59,000 + 69,000 = 128,000 af

Figure 1: Base Period Calculations



(d) **Base Period In-lieu Deliveries:** Calculated by averaging in-lieu deliveries from the same three-year period that was used to calculate the Base Period Local Supplies and Demands.

(4,000 af +5,000 af +4,500 af)÷3=4,500 af

(e) **Base Period Interim Agricultural Water Program Deliveries:** Fiscal year 2003/04 was established as the base period for Interim Agricultural Water Program (IAWP) deliveries

Base Period IAWP Deliveries = 6,000 af

(f) **Base Period Conservation:** Calculated using a tool developed by Metropolitan staff that inputs the total amount of conservation savings devices and programs installed by each member agency and standardized water savings factors provided by the CUWCC and other recognized bodies.

Base Period Conservation=14,500 af

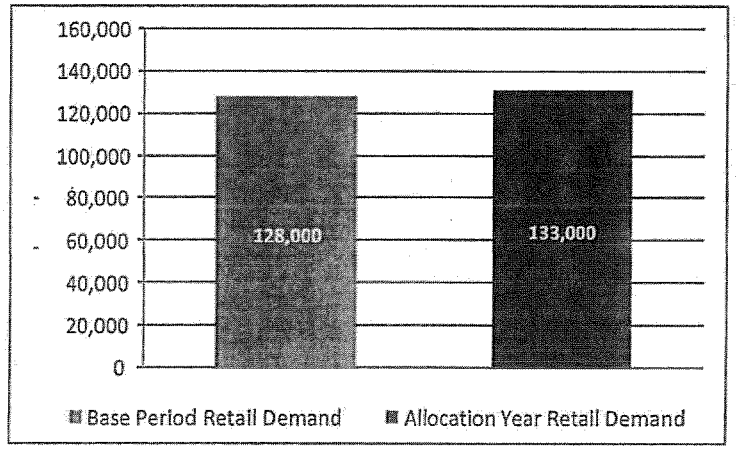
(g) **Qualifying Conservation Rate Structure:** Agencies that have retail use that is covered by a qualifying conserving water rates structure would be able to add .5 percent of their covered Base Period Retail Demand to the Base Period Conservation.

Step 2: Allocation Year Calculations

(a) **Allocation Year Retail Demand:** Calculated by adjusting the Base Period Retail Demand for growth that occurred since the Base Period using the average annual rate of county-level population growth over the three-year base period or a weighted combination of population and employment growth rates if an agency so requests through the appeals process.

128,000 af + 5,000 af (based on average annual growth rates)= 133,000 af

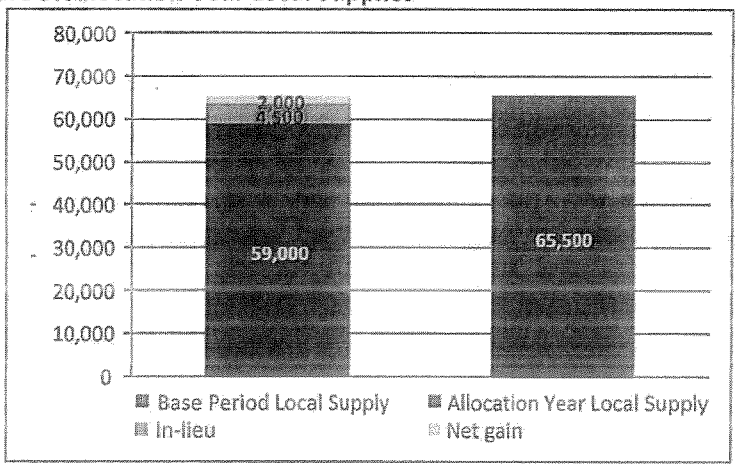
Figure 2: Allocation Year Retail Demand



(b) **Allocation Year Local Supplies:** Calculated by adding the Base Period Local Supplies (59,000 af), Base Year In-Lieu Deliveries (4,500 af), and adjustments for gains or losses of local supply. For the purposes of this example a net gain in local supply of 2,000 af is assumed.

59,000 af + 4,500 af + 2,000 af =65,500 af

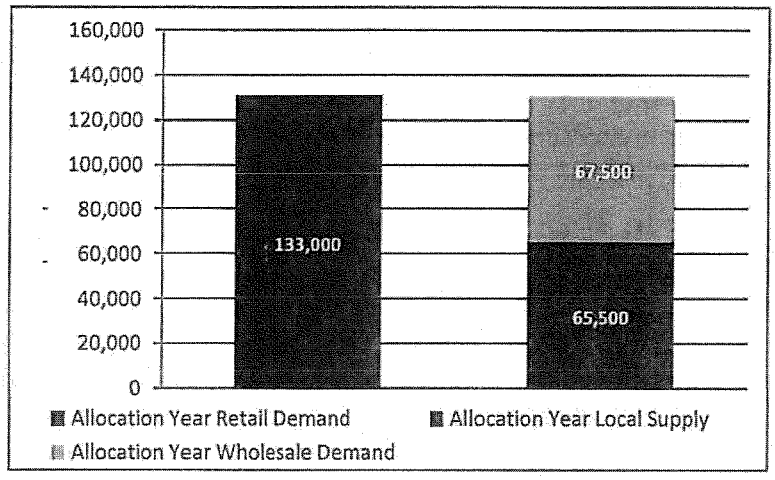
Figure 3: Allocation Year Local Supplies



(c) **Allocation Year Wholesale Demands:** Calculated by subtracting the Allocation Year Local Supplies (65,500 af) from the Allocation Year Retail Demands (133,000 af).

133,000 af -65,500 af= 67,500 af

Figure 4: Allocation Year Wholesale Demand



Step 3: Supply Allocation Calculations

Regional Shortage Levels 1 &2: For regional shortages of 10 percent or less, the allocation is an across-the-board reduction in wholesale supplies to all agencies with adjustments for conservation demand hardening. There is no adjustment to address disparate retail level shortages in Regional Shortage Levels 1 & 2.

(a) **Regional Shortage Levels:** For the example, we will use calculations from Table 1 for Regional Shortage Level 2.

Table 1: Shortage Allocation Index

(a) Regional Shortage Level	(b) Regional Shortage Percentage	(c) Extraordinary Increased Production Percentage	(d) Wholesale Minimum Percentage	(e) Maximum Retail Impact Percentage	(f) IAWP Reduction
2	10%	0%	85.0%	0.0%	30%

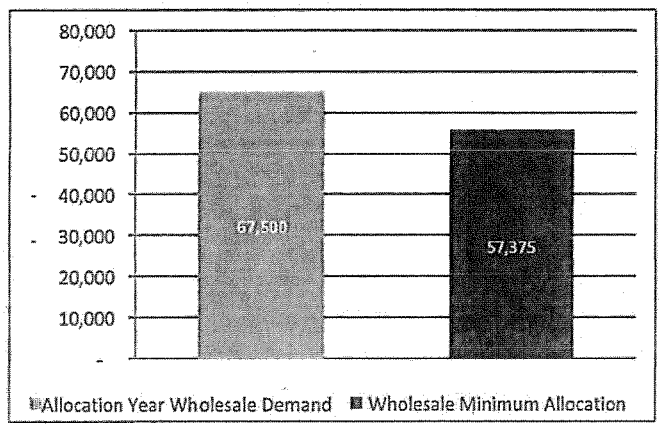
(b) **Regional Shortage Percentage:** The Regional Shortage Percentage at Regional Shortage Level 2 = 10%

(c) **Extraordinary Increased Production Adjustment:** There is no increase in Allocation Year Local Supplies for Extraordinary Increased Production in Regional Shortage Levels 1 and 2.

(d) **Wholesale Minimum Allocation:** Calculated by multiplying the agency's Allocation Year Wholesale Demand (67,500 af) by the Wholesale Minimum Percentage (85%) from the Table 1 for Regional Shortage Level 2.

67,500 af*.85 = 57,375 af

Figure 5: Wholesale Minimum Allocation Shortage Level 2

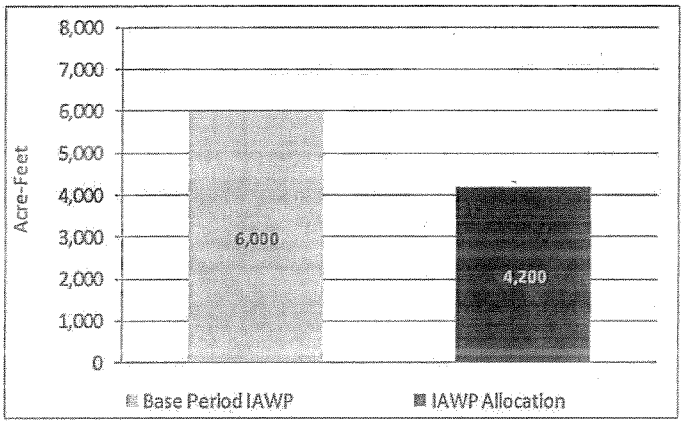


(e) **Maximum Retail Impact Adjustment:** There is no adjustment for Maximum Retail Impact Adjustment for Regional Shortage Levels 1 and 2.

(f) **Interim Agricultural Water Program Reductions:** Calculated by reducing the Base Year IAWP deliveries (6,000 af) by the IAWP Reduction Percentage (30%). At Regional Shortage Level 2 this agency would see a 30 percent reduction in IAWP deliveries in the allocation year.

6,000 af x .30 = 1,800 af reduction
6,000 af- 1,800 af= 4,200 af IAWP Allocation

Figure 6: Interim Agricultural Water Program Reductions Shortage Level 2

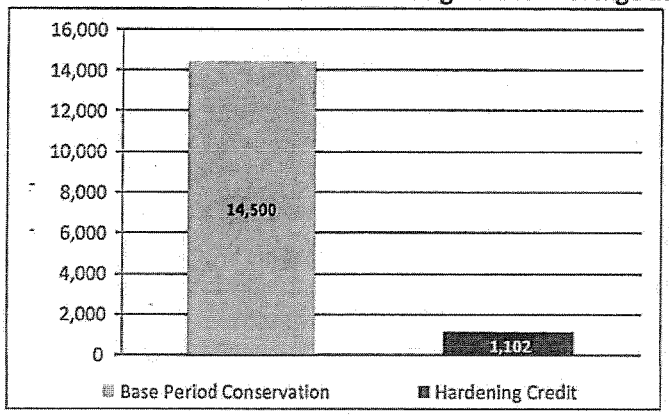


(g) **Conservation Demand Hardening Credit:** Calculated by multiplying the agency's quantified conservation savings in acre-feet (14,500 af) by its estimated retail shortage percentage. The retail shortage percentage is calculated by adding Wholesale Minimum Allocation (57,375 af) and Allocation Year Local Supplies (65,500 af), dividing by Allocation Year Retail Demands (133,000 af) and then subtracting this from 1. .

1- ((57,375 + 65,500) ÷ 133,000) = .076 = 7.6%.

14,500 af*.076= 1,102 af

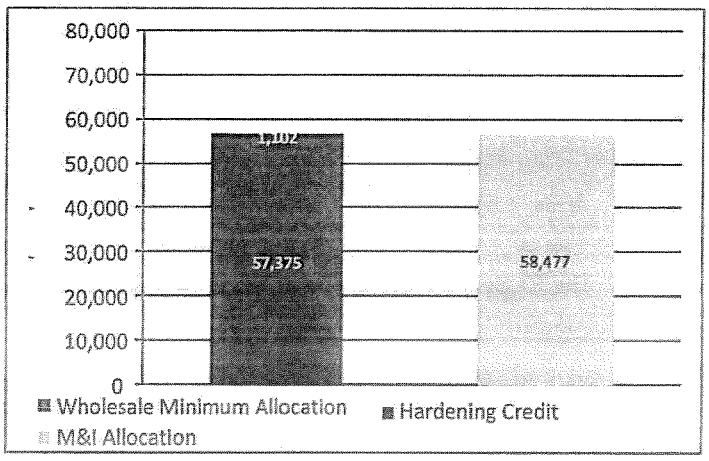
Figure 7: Conservation Demand Hardening Credit Shortage Level 2



(h) **Municipal & Industrial Allocation:** Calculated by adding the Wholesale Minimum Allocation (57,375 af) and the Conservation Hardening Credit (1,102 af).

57,375 af + af+1,102 af= 58,477 acre-feet.

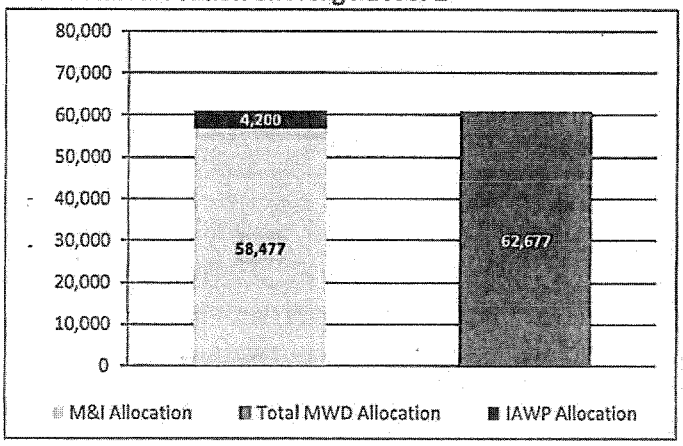
Figure 8: Municipal and Industrial Allocation Shortage Level 2



(i) **Total Allocation:** Add Municipal & Industrial Allocation (58,477 af) and Interim Agricultural Water Program (4,200 af) totals.

58,477 af + 4,200 af = 62,677 af

Figure 9: Total Allocation Shortage Level 2



Regional Shortage Levels 3-10: For deeper regional shortages greater than 10 percent, the Allocation Plan formula includes a Retail Impact Adjustment Allocation to address disparate retail level shortages. This example will follow the allocation formula through a Regional Shortage Level 4.

(a) **Regional Shortage Levels:** Calculate from Table 1 for Regional Shortage Level 4.

Table 1: Shortage Allocation Index

(a) Regional Shortage Level	(b) Regional Shortage Percentage	(c) Extraordinary Increased Production Percentage	(d) Wholesale Minimum Percentage	(e) Maximum Retail Impact Percentage	(f) IAWP Reduction
4	20%	20%	70.0%	10.0%	50%

(b) **Regional Shortage Percentage:** The Regional Shortage Percentage at Regional Shortage Level 4 is 20%

(c) **Extraordinary Increased Production Adjustment:** Let us assume that the agency has produced 3,700 af of extraordinary production of local supplies in a shortage year. This is calculated by multiplying the extraordinary production (3,700 af) and the Extraordinary Increase Percentage (20%).

3,700 af*.20=740 af

This is then added to the Allocation Year Local Supply (65,500 af).

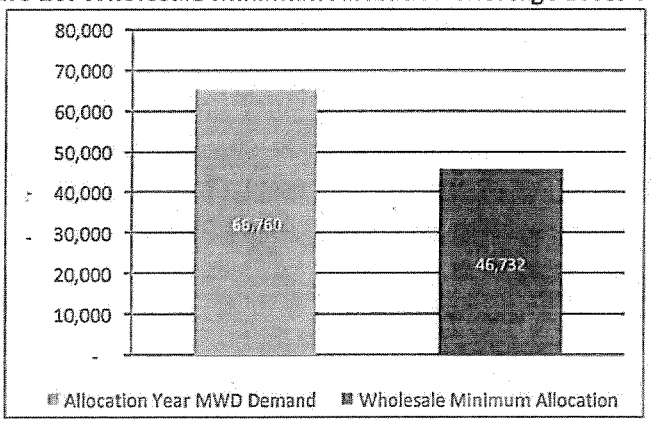
65,500 af + 740 af = 66,240 af

The **Allocation Year Wholesale Demand** (67,500 af) is then decreased by the extraordinary local supply production (740 af) because Allocation Year Retail Demands (133,000 af) remain unchanged.

133,000 af- 66,240 af = 66,760 af or
67,500 af-740 af=66,760 af

(d) **Wholesale Minimum Allocation:** Calculated by multiplying the agency's Allocation Year Wholesale Demand (66,760 af) by the Wholesale Minimum Percentage (70%) from the Table 1 for Regional Shortage Level 4.
66,760 af*.70 = 46,732 af

Figure 10: Wholesale Minimum Allocation Shortage Level 4



(e) **Maximum Retail Impact Adjustment:** Calculated first by determining the agency's dependence on Metropolitan by dividing the Allocation Year Wholesale Demand (66,760 af) by the Allocation Year Retail Demand (133,000 af) and multiplying by 100.

(66,760 af/ 133,000 af)*100=50.2%

Next, this percentage dependence on Metropolitan (50.2%) is multiplied by the Maximum Retail Impact Percentage for Shortage Level 4 (10%).

.502 * .10 =.050=5%

This percentage is now multiplied by the Allocation Year Wholesale Demand (66,760 af) for the Maximum Retail Impact Adjustment.

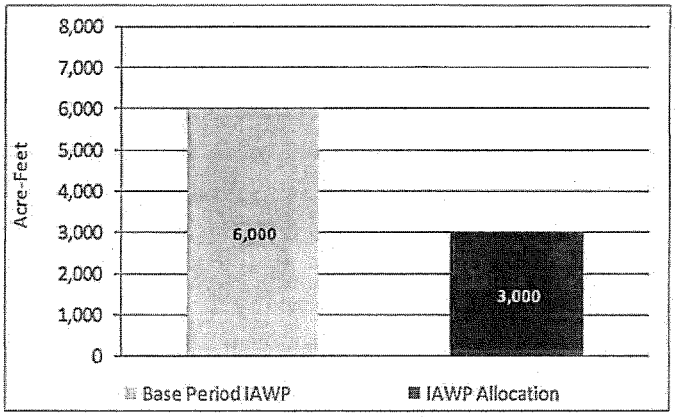
66,760 af*.050=3,351 af

(f) **Interim Agricultural Water Program Reductions:** Calculated by reducing the Base Year IAWP deliveries by the IAWP Reduction Percentage. Under a Regional Shortage Level 4 the agency

would see 50% reduction in IAWP deliveries in the allocation year. We will assume the agency has 6,000 af IAWP water.

6,000 af * .50 = 3,000 af

Figure 11: Interim Agricultural Water Program Reductions Shortage Level 4



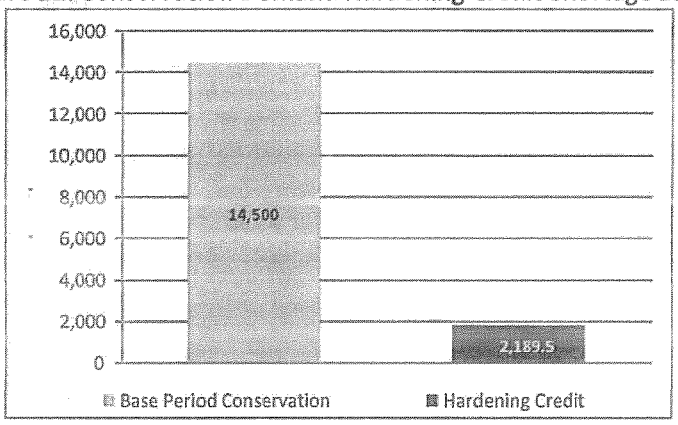
(g) **Conservation Demand Hardening Credit:** Calculated by adding Wholesale Minimum Allocation (46,732 af) and Allocation Year Local Supplies (66,240 af), dividing by Allocation Year Retail Demands (133,000 af) and then subtracting this from 1.

1- ((46,732 + 66,240) ÷ 133,000) = .151 = 15.1%.

Next, multiply the agency's quantified conservation savings in acre-feet (14,500 af) by its estimated retail shortage percentage calculated in the step above.

14,500 af*.151= 2,189.5af

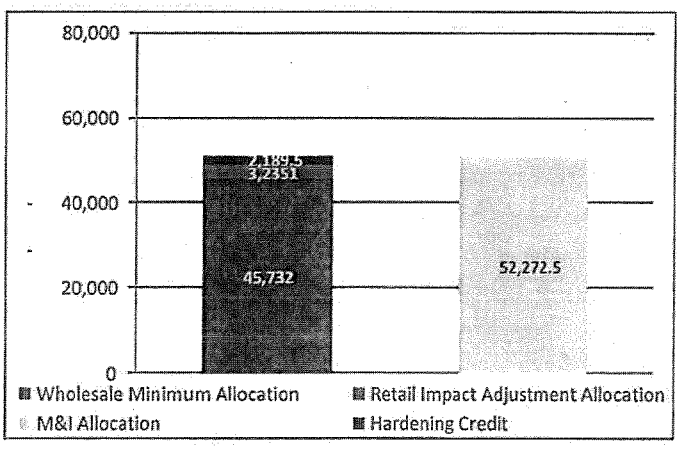
Figure 12: Conservation Demand Hardening Credit Shortage Level 4



(h) **Municipal & Industrial Allocation:** Calculated by adding the Wholesale Minimum Allocation (46,732 af), the Maximum Retail Impact Adjustment (3,351 af), and the Conservation Hardening Credit (2,189.5 af).

46,732 af + 3,351af+ 2,189.5 af= 52,272.5 af

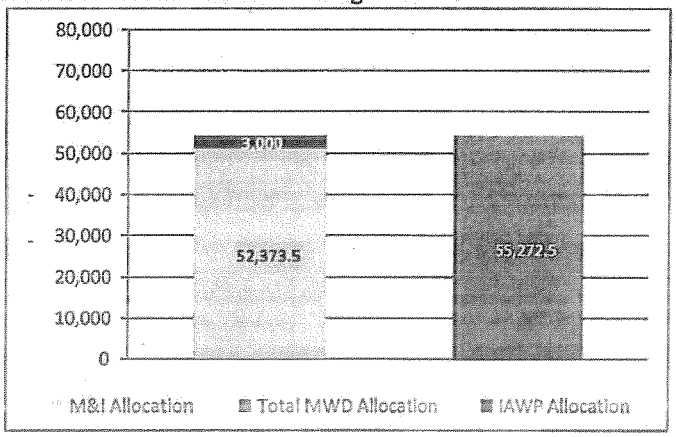
Figure 13: Municipal and Industrial Allocation Shortage Level 4



(i) **Total Allocation:** Calculated by adding the Municipal and Industrial Allocation (52,272.5 af) and the Interim Agricultural Water Program Allocation (3,000 af).

52,272.5 af + 3,000 af= 55,272.5 af

Figure 14: Total Allocation Shortage Level 4



Appendix E: Water Rates, Charges, and Definitions

Definitions:

Table 8: Tiered Water Pricing Rates and Charges		
Rate	2007	2008
Tier 1 Supply Rate (dollars per acre-foot)	$73	$73
Tier 2 Supply Rate (dollars per acre-foot)	$169	$171
System Access Rate (dollars per acre-foot)	$143	$143
Water Stewardship Rate (dollars per acre-foot)	$25	$25
System Power Rate (dollars per acre-foot)	$90	$110
Full Service Untreated Volumetric Cost ($/AF)		
Tier 1	$331	$351
Tier 2	$427	$449
Replenishment Water Rate: untreated (dollars per acre-foot)	$238	$258
Interim Agricultural Water Program: untreated (dollars per acre-foot)	$241	$261
Treatment Surcharge (dollars per acre-foot)	$147	$157
Full Service Treated Volumetric Cost ($/AF)		
Tier 1	$478	$508
Tier 2	$574	$606
Treated Replenishment Water Rate (treated dollars per acre-foot)	$360	$390
Treated Interim Agricultural Water Program (dollars per acre-foot)	$364	$394
Readiness-to-Serve Charge (millions of dollars)	$80	$82
Capacity Charge (dollars per cubic foot second)	$6,800	$6,800

(1) **Tier 1 Supply Rate** - recovers the cost of maintaining a reliable amount of supply.

(2) **Tier 2 Supply Rate** - set at Metropolitan's cost of developing additional supply to encourage efficient use of local resources.

(3) **System Access Rate** – recovers a portion of the costs associated with the delivery of supplies.

(4) **System Power Rate** – recovers Metropolitan's power costs for pumping supplies to Southern California.

(5) **Water Stewardship Rate** – recovers the cost of Metropolitan's financial commitment to conservation, water recycling, groundwater clean-up and other local resource management programs.

(6) **Replenishment Water Rate** – a discounted rate for surplus system supplies available for the purpose of replenishing local storage.

(7) **Treated Replenishment Water Rate** – a discounted rate for surplus system supplies available for the purpose of replenishing local storage.

(8) **Interim Agricultural Water Rate** – discounted rate for surplus system supplies available for the purpose of growing agricultural, horticultural, or floricultural products.

(9) **Treated Interim Agricultural Water Program Rate** – discounted rate for surplus system supplies available for the purpose of growing agricultural, horticultural, or floricultural products.

(10) **Treatment Surcharge** – recovers the costs of treating imported water.

(11) **Readiness-to-Serve Charge** - a fixed charge that recovers the cost of the portion of system capacity that is on standby to provide emergency service and operational flexibility.

(12) **Capacity Charge** – the capacity charge recovers the cost of providing peak capacity within the distribution system.

http://www.mwdh2o.com/mwdh2o/pages/finance/finance_03.html

Appendix F: Preferential Rights

Any review of Metropolitan's methods for allocating supplies during shortages must recognize Section 135 of the 1927 Metropolitan Water District Act (Act). Under Section 135, each member agency has a preferential right to a percentage of Metropolitan's available water supplies based on a legislatively established formula. That percentage is equal to the ratio of each member agency's total accumulated payments to Metropolitan's capital costs and operating expenses compared to the total of all member agencies' payments toward those costs, exempting payments for water purchases. As a result, a member agency's preferential right roughly equals it's pro rata share of all tax assessments and other payments.

In the event of a water supply shortage or drought, any Metropolitan member agency can request that its preferential right be invoked; however, Metropolitan's Board of Directors has never exercised this provision of the Act, even in response to the two statewide droughts in 1976-77 and 1987-92.

Appendix G: Allocation Appeals Process

Step 1: Appeals Submittal:

All appeals shall be submitted to the Appeals Liaison in the form of a written letter signed by the Member Agency General Manager. Each appeal must be submitted as a separate request, submittals with more than one appeal will not be considered. The appeal request is to include:

- A designated Member Agency staff person to serve as point of contact.
- The type of appeal (erroneous baseline data, loss of local supply, etc.).
- The quantity (in acre-feet) of the appeal.
- A justification for the appeal which includes supporting documentation.

A minimum of 60 days are required to coordinate the appeals process with Metropolitan's Board process.

Step 2: Notification of Response and Start of Appeals Process

The Appeals Liaison will phone the designated Member Agency staff contact within 3 business days of receiving the appeal to provide an initial receipt notification, and schedule an appeals conference. Subsequent to the phone call, the Liaison will send an e-mail to the Agency General Manager and designated staff contact documenting the conversation. An official notification letter confirming both receipt of the appeal submittal, and the date of the appeals conference, will be mailed within 2 business days following the phone contact

Step 3: Appeals Conference

All practical efforts will be made to hold an appeals conference between Metropolitan staff and Member Agency staff at Metropolitan's Union Station Headquarters within 15 business days of receiving

the appeal submittal. The appeals conference will serve as a forum to review the submittal materials, and ensure that there is consensus understanding as to the spirit of the appeal. Metropolitan staff will provide an initial determination of the size of the appeal (small or large), and review the corresponding steps and timeline for completing the appeals process.

Steps 4-7 of the appeals process differ depending upon the size of the appeal

Small Appeals

Small appeals are defined as those that would change an agency's allocation by less than 10 percent, or are less than 5,000 acre-feet in quantity. Small appeals are evaluated and approved or denied by Metropolitan staff.

Step 4: Preliminary Decision

Metropolitan staff will provide a preliminary notice of decision to the Member Agency within 10 business days of the appeals conference. The Appeals Liaison will mail a written letter to the Member agency staff contact and General Manager, stating the preliminary decision and the rationale for approving or denying the appeal.

Step 5: Clarification Conference

Following the preliminary decision the Appeals Liaison will schedule a clarification conference. The Member Agency may choose to decline the clarification conference if they are satisfied with the preliminary decision. Declining the clarification conference serves as acceptance of the preliminary decision, and the decision becomes final.

Step 6: Final Decision

Metropolitan staff will provide a final notice of decision to the Member Agency within 10 business days of the clarification conference. The Appeals Liaison will mail a written letter to the Member agency staff contact and General Manager, stating the final decision and the rationale for the decision. A copy of the letter will also be provided to Metropolitan executive staff.

> Step 6a: Board Resolution of Small Appeal Claims
>
> Member agencies may request to forward appeals that are denied by Metropolitan staff to the Board of Directors through the Water Planning and Stewardship Committee for final resolution. The request for Board resolution shall be submitted to the Appeals Liaison in the form of a written letter signed by the Member Agency General Manager, this request will be administered according to Steps 6 and 7 of the large appeals process.

Step 7: Board Notification

Metropolitan staff will provide a report to the Board of Directors, through the Water Planning and Stewardship Committee, on all submitted appeals including the basis for determination of the outcome of the appeal.

Large Appeals

Large appeals are defined as those that would change an agency's allocation by more than 10 percent, and are larger than 5,000 acre-feet. Large appeals are evaluated and approved or denied by the Board of Directors.

Step 4: Preliminary Recommendation

Metropolitan staff will provide a preliminary notice of recommendation to the Member Agency within 10 business days of the appeals conference. The Appeals Liaison will mail a written letter to the Member agency staff contact and General Manager, stating the preliminary recommendation and the rationale for the recommendation. A copy of the draft recommendation will also be provided to Metropolitan executive staff.

Step 5: Clarification Conference

Following the preliminary recommendation the Appeals Liaison will schedule a clarification conference. The Member Agency may choose to decline the clarification conference if the satisfied with preliminary recommendation. Declining the clarification conference signifies acceptance of the preliminary recommendation, and the recommendation becomes final.

Step 6: Final recommendation

Metropolitan staff will provide a final notice of recommendation to the Member Agency within 10business days of the clarification conference . The Appeals Liaison will mail a written letter to the Member agency staff contact and General Manager, stating the final recommendation and the rationale for the recommendation. A copy of the final recommendation will also be provided for Metropolitan executive review.

Step 7: Board Action

Metropolitan staff shall refer the appeal to the Board of Directors through the Water Planning and Stewardship Committee for approval.

Appendix H: Appeals Submittal Checklist

Appeal Submittal

- ☐ Written letter (E-mail or other electronic formats will not be accepted)
- ☐ Signed by the Agency General Manager
- ☐ Mailed to the appointed Metropolitan Appeals Liaison

Contact Information

- ☐ Designated staff contact
  - Name
  - Address
  - Phone Number
  - E-mail Address
- ☐ General Manager
  - Name
  - Address
  - Phone Number
  - E-mail Address

Type of Appeal

- ☐ State the type of appeal
  - Erroneous historical data used in base period calculations
    - Metropolitan Deliveries
    - Local Production
    - Growth adjustment
    - Conservation savings
  - Unforeseen loss or gain in local supply
  - Extraordinary increases in local supply

Quantity of Appeal

- ☐ State the quantity in acre-feet of the appeal

Justification and Supporting Documentation

- ☐ State the rationale for the appeal
- ☐ Provide verifiable documentation to support the stated rationale
  - Examples of verifiable documentation include, but are not limited to:
    - Billing Statements
    - Invoices for conservation device installations
    - Basin Groundwater/Watermaster Reports
    - CA Department of Finance economic or population data
    - Department of Public Health reports

Appendix I: Frequently Asked Questions

General Questions

1) What would be considered a "shortage" that would cause the plan to go into effect?

   Answer: An allocation may be needed in a condition where projected water supplies and reasonably managed storage withdrawals are not adequate to meet projected demands for water.

2) Can allocations be carried over to future months (use underutilization in one month to offset exceeding allocations in other months?

   Answer: Member agency allocations are annual in nature. Technically, there is no such thing as an under or over utilization on a monthly basis. However, Metropolitan will report monthly tracking to member agencies for their information.

3) Can unused allocation credits be sold to other agencies?

   Answer: No. Unused allocations remain within the regional pool of water supplies to be distributed or allocated in a later year.

4) How will the allocations be enforced (other than penalties)? Will there be any physical restrictions or will agencies be allowed to overdraw with penalties?

   Answer: Water use in excess of a member agency's allocation will be enforced through the penalty rate structure as defined in the Water Supply Allocation Plan. However, Metropolitan reserves the right to impose physical restrictions on water deliveries.

5) In the revisit of the plan in the third year, what will be the process for re-evaluating the plan and incorporating changes/recommendations from member agencies prior to recommending any proposed changes?

   Answer: The process will be similar to the one used to develop the plan, meaning a collaborative member agency process where issues can be discussed. Proposed resolutions to issues will be taken to the Board for approval.

Interim Agricultural Water Program Issues

6) How will Metropolitan track IAWP vs. M&I usage in an allocation?

   Answer: Metropolitan will look at total deliveries to each member agency and track those deliveries against the sum of the agency's monthly IAWP reduction limits and WSAP allocation limits. This will give a rough feel for how an agency is tracking. IAWP may need to be certified within a month, if an M&I allocation is declared. The current IAWP requirement is a three-month certification timeframe. Shortening the certification deadline will allow more timely reporting of performance against allocation targets.

Conservation Hardening Credit

7) How will Metropolitan evaluate appeals for larger conservation hardening credits due to Conservation-based rate structure savings?

   Answer: Agencies with qualifying conservation-based rate structures receive, by default, a credit of 0.5 percent of their retail demand that is covered by the rate structure. An appeal for a larger hardening credit will, at a minimum, need to include documentation of savings that are larger than the .5 percent. An appeal will be approved or denied on the basis of the documentation.

8) Are conservation savings due to higher water prices factored into the conservation data that leads to a conservation hardening credit for a member agency?

   Answer: Price-effect savings are not included as part of the calculation of conservation for the conservation hardening credit.

9) How current is the conservation data used to calculate each member agency's allocation baseline (CY 2006 or later)?

   Answer: The conservation data used is from the most recent calendar year with complete data. For an allocation declared in April of 2009, Metropolitan will work to use data through the end of 2008, if it is complete.

10) If an agency has been managing and conserving water over the base period, doesn't an allocation plan penalize such a conservation-conscious agency?

    Answer: The plan recognizes these efforts and the impacts through the conservation hardening credit. This is consistent with the goal to provide water on a needs-basis through the Water Supply Allocation Plan.

Local Supplies

11) What is the process to request a loss of local supply adjustment?

    Answer: The loss of local supply adjustment increases the amount of water Metropolitan will have to deliver under a given allocation. For this reason, an initial estimate of loss of local supplies needs to be submitted by April 1, 2009. These adjustments will be taken into account as Metropolitan staff recommends the depth of allocation that is needed.

    Once an allocation is declared, Metropolitan will need to track sales against the allocation on a monthly basis. This will require agencies to certify their local water used each month, so Metropolitan can track how each agency is faring compared to their allocation. As the year progresses and more information on actual local supply use become available, member agency

allocations will be adjusted to reflect the actual local supply use. Member agencies can submit appeals to have local supplies that are in excess of their baseline period use characterized as "extraordinary" production, as opposed to normal gains in local supply. Metropolitan may also ask to review a member agency's local supply projection if actual production data for the year indicates local supplies that are significantly different than the projection submitted on April 1st.

12) How will actual data for local production that occurs within an allocation year be viewed vs. projected local production data that the allocation is based on?

Answer: Member agency projections of local supply for the coming allocation year will be submitted to Metropolitan by April 1st of each year. This information will be used to help determine the need and depth of an allocation in the coming allocation year. Initial member agency allocations will be set based on these local supply assumptions. As the year progresses, member agency allocation limits will be adjusted by the actual local supply production that occurs within the year.

13) Will Met review initial forecasted local supplies to screen for potential gaming or unrealistic estimates?

Answer: Forecasted local supplies will require documentation as to reasons why it is different from the base period. As mentioned in Questions 13 and 14, final member agency allocations will reflect the actual local supply use that occurs within the allocation year, which should limit potential "gaming" of the allocation framework.

14) What is the impact if large loss-of-local-supply adjustments are given up front and then actual local supplies are higher than estimated in the allocation year?

Answer: If actual local supplies are higher than estimated, regional water use will be lower than expected and will result in a lesser need for an allocation in the following year. It is possible that loss of local supply adjustments given at the beginning of the period will result in a higher allocation level than needed. This is why it is critical for agencies to provide accurate and documented estimates of their supplies.

15) What criteria will be used to determine the difference between "planned increases" and "extraordinary increases" in local supply?

Answer: Planned increases are defined as increased local supplies that have been previously identified through UWMP's and/or other planning or CIP documents. "Extraordinary Increases" are defined as increased local supplies that occur solely due to the circumstances in that year.

16) How will the two year performance requirement for Replenishment interruption affect adjustments for loss of local supply?

Answer: The allocation formula does not allow a loss of local supply for agencies that purchased replenishment water in the base period (limited by the annual average amount of replenishment water purchased) until a period of two years following the end of the base period.

17) Extraordinary increased production adjustment: why penalize the agencies at all, even with a percentage adjustment?

Answer: The extraordinary increased production adjustment does not penalize agencies. Instead, it is consistent with the regional sharing concept that is one of the foundations of the plan.

Penalty Rates and Billing

18) How will Metropolitan collect any penalties for over use in an allocation? Will the penalties be assessed as a one-time lump-sum payment or will they be spread over time?

Answer: Penalties will be assessed for water sales that are above an agency's 12-month allocation amount. Penalties will be assessed in one lump-sum.

19) How will certifications be factored into determination of final penalty status? How soon will Metropolitan have a good accounting of Full Service vs. Interim Agricultural Water Program (IAWP) deliveries?

Answer: Member agencies may be required to submit IAWP certifications within one month of the month of use. Water not certified within this timeframe as IAWP will be counted as full service deliveries. Certification of deliveries out of Metropolitan's groundwater conjunctive use accounts will be treated in the same way.

20) What will be the billing timeframe for penalties?

Answer: There will be a one-month delay between the end of the 12-month allocation period and the assessment of penalties. This delay will allow for local supply certifications, which will modify an agency's final allocation total. An allocation that goes into effect in July will run from July through June of the following year. Each month during the allocation period, member agencies must certify the use of local supplies in their service area. This will allow Metropolitan to properly track actual water use within each member agency, which will result in adjustments to each agency's allocation limit. This allocation period will end in June, with local supply certifications due in the following month (July). Based on these certifications, Metropolitan will assess penalties for the 12-month allocation period on the bills that are sent out in August.

21) Will the allocation penalties accrue interest?

Answer: Late payments will be handled as defined in Section 4508 of Metropolitan's Administrative Code, which sets forth additional charges for delinquent payments. In general, late charges are equivalent to two percent of the delinquent payment for each month or portion thereof that such payment remains delinquent.

Seawater Barrier Deliveries

22) How will Metropolitan handle deliveries to seawater barrier that are required for mixing with recycled water to meet state requirements?

Answer: Seawater Barrier deliveries will be treated the same as other full service water deliveries. Deliveries for Seawater Barrier purposes will be counted toward an agency's allocation limit.

Base Period

23) Will the base period data be available online? How often will it be updated?

Answer: The base period data will not likely change, except in cases where recertification of MWD purchases from 2004-2006 take place. The data supporting each member agency's allocation will be available through Metropolitan's member agency website.

24) What is the source for the non-MWD data?

Answer: Local supply information is provided by the member agencies.

25) What is the source for the employment growth rates?

Answer: The WSAP does not use employment growth rates as a default. Agencies that file an appeal to use employment growth rates as part of their growth adjustment will be required to have documentation of the source of those growth rates.

APPENDIX B

Appendix B

Water Supply Allocation Plan Public Outreach Timeline

January 2008

- MWD Member Agency Conservation Coordinator's Group Presentation
- MWD Member Agency Managers/Member Agency Workgroup Meeting
- MWD/IEUA City of Chino Hills Presentation
- MWD Member Agency Workgroup Meeting
- MWD Board of Directors Report with Staff Recommended Water Supply Allocation Plan
- CBWM Advisory Committee Status Report on Drought Planning Update/DYY Implementation

February 2008

- MWD Board of Directors Adopted "Drought" Water Supply Allocation Methodology
- IEUA Board of Directors Presentation "MWD/Chino Basin Dry Year Yield (DYY) Implementation & MWD's Drought Allocation Plan
- CBWM Advisory Committee Status Report on MWD Drought Update

March 2008

- IEUA Board of Director MWD/Chino Basin Dry Year Yield (DYY) Implementation & MWD's Drought Allocation Plan Powerpoint

April 2008

- IEUA Board of Director's Reviews Proposed Drought Allocation Plan

May 2008

- MWD Board of Directors Proposes Implementation of Extraordinary Conservation Measures
- IEUA & MWD Meeting to Discussion Local Water Production
- CBWM Advisory Committee Update on MWD Water Alert Presentation

June 2008

- IEUA Board of Directors IEUA Water Supply Board Letter
- IEUA Dry Year Yield Meeting
- MWD Board of Directors Adopts Water Supply Alert Resolution
- MWD Member Agency Meeting
- CBWM Advisory Committee Update on MWD Drought Action Alert/Regional Conservation Actions

July 2008

- IEUA Dry Year Yield Meeting
- IEUA Board of Director Water Supply Update Board Letter
- CBWM Advisory Committee Report Update on MWD Integrated Water Resources Plan

August 2008

- IEUA Water Supply Strategy Meeting
- IEUA Dry Year Yield Meeting
- MWD Member Agency Managers/Member Agency Workgroup Meeting
- MWD Northern Managers Meeting

September 2008

- IEUA Water Supply Strategy Meeting
- IEUA Dry Year Yield Meeting
- MWD IRP Workshops (3 dates)
- MWD Drought Workshop at IEUA
- MWD 5-Year Plan Conservation & Local Supply Workgroup Meeting
- CBWM Advisory Committee Report on Drought & MWD IRP/5-Year Supply Plan Update

October 2008

- IEUA Water Supply Strategy Meeting
- IEUA Dry Year Yield Meeting
- DWR Drought Workshop
- MWD Water Conservation Ordinance Workshop
- MWD Southern Agencies Meeting @ EMWD
- CBWM Advisory Committee Report on MWD Water Supply Allocation Plan Update

November 2008

- IEUA Water Supply Strategy Meeting
- IEUA Dry Year Yield Meeting
- CBWM Advisory Committee Report on MWD Water Supply Allocation Plan Update

December 2008

- Water Facilities Authority Meeting
- IEUA Water Supply Strategy Meeting/Dry Year Yield Meeting
- CBWM Advisory Committee Report on MWD Water Supply Allocation Plan
- MWD Member Agency Managers/Member Agency Workgroup Meeting

January 2009

- IEUA Water Supply Strategy Meeting
- IEUA Dry Year Yield Meeting
- CBWM Advisory Committee Report on MWD Water Supply Allocation Plan Update
- IEUA Board of Director Drought Plan Update

February 2009

- IEUA Drought Plan & Dry Year Yield Meeting
- CBWM Advisory Committee Report on Water Supply Allocation Update
- IEUA Board of Director Status Report on Drought Planning for 2009

March 2009

- IEUA Drought Plan & Dry Year Yield Meeting
- CBWM Advisory Committee Report on IEUA Drought Allocation Plan & MWD Water Supply Allocation Update
- Two IEUA Drought Plan Workgroup Meetings

**Note that additional information for the period July 2007 – December 2007 is available and can be added to this appendix.*

APPENDIX C

Appendix C – Distribution of IEUA's 2009 Imported Water Allocation from MWD

IEUA's 2009 baseline allocation from MWD is 69,386 AF (MWD's Water Supply Allocation Plan – February 2008). IEUA allocates its baseline allocation according to the following two steps:

Step 1 – Actual 2004-2006 Firm Water Deliveries

- The actual calendar year 2004-2006 average firm water deliveries to WFA and CVWD were 51,992 AF. IEUA allocates its baseline allocation from MWD based on actual deliveries during the 2004-2006 base period.
    - WFA's 3 year average purchases (2004-2006) = 21,671 AF
    - CVWD's 3 year average purchases (2004-2006) = 30,321 AF
    - FWC (no purchases during 2004-2006) = 0 AF

Step 2 – Allocation above 2004-2006 Firm Water Deliveries is Based on 2008 Population

- Under the MWD baseline allocation there is a surplus allocation (69,386 – 51,992 = ***17,394 AF***). This surplus allocation will decrease depending on shortage allocation. Shortage levels 4 and higher would eliminate the surplus allocation. If a shortage level 4 or higher is implemented by MWD, IEUA will allocate a pro-rata share to WFA and CVWD based on the 2004-2006 firm water deliveries.
- This surplus allocation (17,394 AF) is allocated based on 2008 Department of Finance population data. The split of the surplus allocation is based on population in the WFA (52%) and the CVWD/FWC (48%) service areas.
    - WFA's allocation = 9,045 AF
    - CVWD's allocation = 8,349 AF
    - FWC's allocation = 0 AF

Summary Table – IEUA and Member Agencies 2009 Imported Water Baseline Allocation

Agency	Base Period Purchases (2004-2006) (a)	Surplus Allocation (b)	IEUA & Member Agencies Baseline Allocation (a + b)
IEUA	51,992	17,394	69,386
Water Facilities Authority	21,671	9,045	30,716
Cucamonga Valley W.D.	30,321	8,349	38,670
Fontana Water Company	0	0	0
TOTAL	51,992	17,394	69,386